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UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 10

IN THE MATTER OF:

ADMINISTRATIVE ORDER ON CONSENT FOR REMOVAL ACTION AND RECOVERY OF COSTS

BLACKBIRD MINE
Lemhi County, Idaho

U.S. EPA Docket No.
10-95-0083-CERCLA

M.A. Hanna Company, Hanna Services
Company, Noranda Mining Inc.,
Noranda Exploration, Inc.,
Blackbird Mining Company Limited
Partnership, Alumet Corporation

Proceeding Under Sections
104, 106(a), 107, and 122
of the Comprehensive
Environmental Response,
Compensation, and
Liability Act, as
amended, 42 U.S.C.
§§ 9604, 9606(a), 9607,
and 9622

Respondents.

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I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Order on Consent (Order) is entered into voluntarily by the United States Environmental Protection Agency (EPA) and the following parties collectively referred to herein as Respondents: M.A. Hanna Company and Hanna Services Company, now known as Rojet Enterprises, Inc. (Hanna); Noranda Mining Inc., Noranda Exploration, Inc., and the Blackbird Mining Company Limited Partnership (Noranda); and the Alumet Corporation (Alumet). This Order provides for the performance of a removal action by Respondents and the payment of unreimbursed response costs incurred by EPA from June 1, 1994, in connection with the property located at the Blackbird Mine Site located in Lemhi County, Idaho (the "Blackbird Mine Site" or the "Site"). This Order requires Respondents to conduct a two-phased removal action described herein to abate an actual or threatened release of hazardous substances, pollutants, or contaminants at or from the Site which may present an imminent and substantial endangerment to the public health, welfare, or the environment.

1 2. This Order is issued pursuant to the authority
2 vested in the President of the United States by Sections 104,
3 106(a), 107, and 122 of the Comprehensive Environmental Response,
4 Compensation, and Liability Act of 1980, as amended, 42 U.S.C.
5 §§ 9604, 9606(a), 9607, and 9622 ("CERCLA"), and delegated to the
6 Administrator of the EPA by Executive Order No. 12580,
7 January 23, 1987, 52 Federal Register 2923, and further delegated
8 to the EPA Regional Administrators by EPA Delegation Nos. 14-14-A
9 and 14-14-B. This authority is conferred on the Program Manager
10 of EPA Region 10 Superfund Remedial Branch, by a Regional
11 Redelegation Order signed by the Regional Administrator.

12 3. EPA has notified the State of Idaho (the State) of
13 this action pursuant to Section 106(a) of CERCLA, 42 U.S.C
14 § 9606(a), and that EPA is the lead agency for coordinating,
15 overseeing, and enforcing the response actions required by this
16 Order. The State, and the United States Forest Service (FS) and
17 the National Oceanic and Atmospheric Administration (NOAA)
18 (collectively referred to herein as Trustees) will participate
19 during the implementation of response actions under the Order,
20 and will be consulted with on deliverables as set forth in this
21 Order. The Forest Service and EPA will coordinate their
22 respective responsibilities in carrying out the functions.
23 delegated to each agency by the President under Executive Order
24 12580, the NCP, and CERCLA, on National Forest Systems Lands at
25 the Site.

1 4. Respondents agree to undertake all actions
2 required by the terms and conditions of this Order. In any
3 action by EPA or the United States to enforce the terms of this
4 Order, Respondents consent to and agree not to contest the
5 authority or jurisdiction of EPA to issue or enforce this Order,
6 and agree not to contest the validity of this Order or its terms.
7 Nothing in this Order shall affect Respondents' obligations under
8 other administrative orders or consent decrees related to this
9 Site.

10 5. Respondents' participation in this Order shall not
11 constitute or be construed as an admission of liability or an
12 admission of EPA's findings, conclusions, or determinations
13 contained in this Order.

14 6. This Order is not to be construed and will not be
15 construed to any extent or for any purposes, however and whenever
16 arising, as an admission of liability or violation of any private
17 contract or instrument or any local, state, or federal ordinance,
18 rule, regulation, or statute, directly or indirectly, on the part
19 of Respondents. Nor shall this Order be admitted into evidence
20 or used in any way, directly or indirectly, in any judicial or
21 administrative proceeding or in any manner against Respondents
22 for any purpose other than in further proceedings by the parties
23 hereto to enforce the terms of this Order, provided, however,
24 that nothing herein shall preclude any party from using the Order
25 or the fact of its entry in defense of any suit or in any
26 proceeding against any other party for the recovery of costs or
27

1 for contribution of costs expended in complying with, or
2 implementing the work provided for in this Order.

4 **II. PARTIES BOUND**

5 7. This Order applies to and is binding upon EPA and
6 upon Respondents and Respondents' heirs, successors, and assigns.
7 Any change in ownership or corporate status of Respondents,
8 including, but not limited to, any transfer of assets or real or
9 personal property shall not alter Respondents' responsibilities
10 under this Order. Respondents are jointly and severally liable
11 for carrying out all activities required by this Order.
12 Compliance or noncompliance by one or more Respondent with any
13 provision of this Order shall not excuse or justify noncompliance
14 by any other Respondent with any provision of this Order.

15 8. Respondents shall ensure that their contractors,
16 subcontractors, and representatives receive a copy of this Order
17 and comply with this Order. Respondents shall be responsible for
18 any noncompliance with this Order by such contractors,
19 subcontractors, and representatives.

21 **III. EPA FINDINGS OF FACT**

22 **A. Site Background**

23 9. The Blackbird Mine is an inactive mine located in
24 Lemhi County, Idaho, approximately 20 miles west of Salmon,
25 Idaho. The unincorporated town of Cobalt is located
26 approximately 10 miles downstream from the Blackbird Mine on

1 Panther Creek. The Blackbird Mine consists of approximately 830
2 acres of patented private mining claims, and is situated within
3 10,000 acres of currently and previously held unpatented mining
4 claims in the Cobalt District of the Salmon National Forest.
5 Respondents and/or their predecessors, are past or current owners
6 and/or operators of the Blackbird Mine Site.

7 10. The Blackbird Mine Site encompasses all or
8 portions of the Blackbird, West Fork Blackbird, Meadow, and
9 Bucktail creeks. These Creeks are tributaries to Big Deer and
10 Panther Creek. Panther Creek flows into the main stem of the
11 Salmon River.

12 11. Valuable mineral deposits were discovered at the
13 Blackbird Mine in 1893. Mining operations began in the early
14 1900s with the most extensive period of extraction and production
15 from 1949 to 1967. The extraction of gold, silver, cobalt, and
16 copper ore from both underground and open pit mining operations
17 resulted in approximately 10.3 acres of unreclaimed open pit, at
18 least 10 miles of underground workings, approximately 4.8 million
19 tons of waste rock, and 2 million tons of mill tailings.

20 12. Numerous adits and portals at the Blackbird Mine
21 provide access to approximately 10 miles of underground workings
22 and provide openings with the surface in the Blackbird, Meadow,
23 and Bucktail Creek drainages.

24 13. Beginning in the 1890s, ore tailings from
25 Blackbird Mine were deposited at numerous locations in the
26 Blackbird Creek drainage system. During the early period of
27

1 operation, the tailings were deposited directly into Blackbird
2 Creek for disposal. Starting in the 1950s, the mill tailings
3 were disposed of in the West Fork Tailings Dam on the Site.

4 14. Since mining activities at the Blackbird Mine
5 began, drainage and leachate from the Mine, including, but not
6 limited to, drainage from contaminated seeps and springs, the
7 tailings impoundment, the adits and numerous waste rock piles,
8 have contained and continue to contain high acidity levels and
9 significant concentrations of hazardous substances, which
10 include, but are not limited to, copper, cobalt, and arsenic.
11 These hazardous substances have been disposed of and released and
12 continue to be released into the surface water and groundwater in
13 and around the Blackbird Mine.

14 15. The actual release and contaminant migration
15 pathways include, but are not limited to, surface and subsurface
16 soils, surface waters and sediments, groundwater, biota, and air.

17 16. Based on recent studies performed by natural
18 resource trustees, including the State, the U.S. Forest Service,
19 and the National Oceanic and Atmospheric Administration (the
20 Trustees), and approximately 20 years of studies conducted by
21 various private and governmental entities, poor water quality
22 resulting from the continuing release of hazardous substances
23 from the Blackbird Mine has contributed significantly and
24 continues to contribute significantly to the following:

25 (a) contamination to surface and groundwaters and sediment
26 resources; (b) the degradation of habitat for aquatic life,

1 including resident and anadromous fisheries in Panther Creek and
2 resident fisheries in Big Deer Creek; (c) the past decline of
3 anadromous fish; and (d) the impeded recovery of anadromous fish
4 in the Panther Creek Drainage, including the spring/summer Snake
5 River chinook salmon and other aquatic biota which existed
6 historically in Panther Creek and its tributaries. The
7 spring/summer Snake River chinook salmon was recently listed as
8 an endangered species under the Endangered Species Act.

9 17. During 1994 spring high water flows, approximately
10 10 kilograms of dissolved copper per day were discharged to
11 Panther Creek via Big Deer and Bucktail Creeks, and 6 kilograms
12 of dissolved copper per day were discharged to Panther Creek via
13 Blackbird Creek.

14 B. Litigation Background

15 18. In December 1983, the state of Idaho filed suit
16 against Noranda Mining Inc., Howmet Turbine Components
17 Corporation, and Hanna Mining Company, under Section 107 of
18 CERCLA, 42 U.S.C. § 9607, and various State laws for pollution
19 damage to the State's surface and ground waters. In a
20 third-party complaint filed in December 1990, the defendant
21 mining companies sought contribution and indemnification from
22 previous owners of the mine or their successors in interest, and
23 from various agencies of the United States.

24 19. The United States filed its claims in June 1993
25 against the alleged current owners and operators -- M.A. Hanna
26 Company, Hanna Services Company, Noranda Mining Inc., Noranda

1 Exploration Company, Blackbird Mining Company Limited Partnership
2 -- and the former owners and operators -- Machinery Center, Inc.,
3 Alumet Corporation, and Union Carbide. The United States
4 asserted claims against all defendants under CERCLA, and against
5 the current owners or operators of the mine under the Clean Water
6 Act and the Endangered Species Act. The defendants, in turn,
7 asserted counterclaims against a number of federal agencies
8 alleging that they are liable under CERCLA for their involvement
9 at the mine. The state of Idaho filed an amended complaint at
10 the same time the United States filed its complaint, which was
11 followed by a new round of counterclaims and third party
12 complaints. The two cases were consolidated on

13 November 10, 1993. (State of Idaho, et al. v. The M.A. Hanna
14 Company, et al., D. Idaho, Consolidated Case No. 83-4179(R))

15 20. In November 1994, and in April 1995, the United
16 States District Court for the District of Idaho (the Court)
17 determined that the federal agencies are not liable under CERCLA;
18 the Court's decision is subject to appeal by Respondents. In
19 April 1995, the Court entered a Consent Decree in the
20 consolidated litigation settling all claims brought by the United
21 States and the State against Union Carbide. On April 28, 1995,
22 Respondents, the United States and the State lodged a consent
23 decree (the Consent Decree) in the Court to settle all other
24 claims brought in the consolidated action. If approved by the
25 Court, the Consent Decree will require Respondents to perform
26 CERCLA response actions at the Blackbird Mine Site (including the

1 response action set forth in this Order), restore water quality
2 in Panther Creek and Big Deer Creek to a level that will support
3 all life stages of salmonids, and implement a plan to attempt to
4 return Snake River chinook salmon to waters impacted by mining
5 activities at the Site, as set forth in the Consent Decree. The
6 Consent Decree would also obligate Respondents to pay 90 percent
7 of the United States' and the State's past response costs, and
8 all future response costs as defined therein.

9 21. The Consent Decree entered into between the United
10 States, the State, and Union Carbide provides for, inter alia, a
11 payment by Union Carbide of \$ 250,000. As more specifically set
12 forth in a Memorandum of Agreement (MOA) between EPA, the State,
13 the Forest Service, and NOAA, these funds may be used for either
14 response actions in the area of the Haynes Stellite Adit if such
15 actions are determined necessary by EPA, or may be used by the
16 Trustees for natural resource damage projects. Under the MOA,
17 persons (including Respondents) may access these funds by request
18 to EPA and the Trustees, including in that request an
19 identification of the work to be accomplished and the cost of
20 such work, for performing investigations and response actions at
21 the Haynes Stellite Adit.

22 C. Administrative Background

23 22. In May 1993, EPA proposed to add the Blackbird
24 Mine Site to the National Priorities List, pursuant to Section
25 105(a)(8) of CERCLA, 42 U.S.C. § 9605(a)(8). 58 Fed. Reg. 27507
26 (May 10, 1993). Three months later, EPA and Noranda entered into

1 an Administrative Order on Consent (AOC) for Removal Response
2 Activities (EPA Docket No. 1093-07-04-106). Under the AOC,
3 Noranda performed an emergency removal action at the West Fork
4 Tailings Dam, including the construction of a surface diversion
5 for the West Fork of Blackbird Creek, plugging an existing
6 culvert after the surface diversion was constructed, and
7 monitoring and maintaining the surface diversion.

8 23. On November 18, 1994, EPA entered into an
9 Administrative Order on Consent for a Remedial Investigation and
10 Feasibility Study (RI/FS) and Other Removal Action (RI/FS AOC)
11 with Noranda and Alumet (EPA Docket No. 10-94-0222). The RI/FS
12 AOC, which includes the RI/FS and Early Action Statements of Work
13 (SOWs) attached thereto, requires Noranda and Alumet to:
14 (1) perform an RI/FS at the Site; (2) evaluate alternative
15 removal actions (also referred to as "Early Actions") through the
16 preparation of an Analysis of Alternatives (AOA); (3) design such
17 removal actions; and (4) reimburse all oversight costs incurred
18 by EPA in connection with the RI/FS, removal actions, and other
19 response activities conducted at the Site.

20 24. In accordance with the RI/FS AOC, on
21 April 19, 1995, Noranda and Alumet submitted to EPA a final AOA
22 that evaluates eight alternative removal actions. The
23 alternative actions were developed to achieve the objectives set
24 forth in the Early Action SOW. These objectives include
25 supporting restoration of water quality and aquatic biota in
26 Panther Creek below the confluence of Blackbird Creek to levels

1 capable of supporting all life stages of anadromous and resident
2 salmonids, and supporting restoration of water quality and
3 aquatic biota in Big Deer Creek below the confluence of South
4 Fork Big Deer Creek to levels capable of supporting all life
5 stages of resident salmonids. The AOA presents a two-phased
6 approach to implementing removal actions at the Site.

7 25. Since a six month planning period was available
8 before on-Site removal activities must be initiated, EPA
9 determined that the circumstances warranted a non-time-critical
10 removal action in accordance with 40 C.F.R. 300.415(b)(4).
11 Accordingly, on April 27, 1995, the AOA was released for a
12 thirty (30) day public comment period pursuant to 40 C.F.R.
13 300.415(m)(4). The removal action set forth herein is the
14 preferred alternative evaluated in the AOA and issued, along with
15 the other alternatives, to the public for comment.

16 26. The RI/FS AOC requires Noranda and Alumet to
17 submit a final design report for both Phase I and Phase II
18 removal activities. These reports will establish the design for
19 implementing Phase I and Phase II removal activities set forth
20 herein.

21 22 IV. EPA CONCLUSIONS OF LAW AND DETERMINATIONS

23 Based on the Findings of Fact set forth above, and the
24 Administrative Record supporting this ~~removal~~ action, EPA has
25 determined that:

1 27. The Blackbird Mine Site is a "facility" as defined
2 by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

3 28. The contaminants found at the Site, as identified
4 in the Findings of Fact above, include "hazardous substances" as
5 defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

6 29. Each Respondent is liable or potentially liable
7 under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

8 30. The conditions described in the Findings of Fact
9 above constitute an actual or threatened release of a hazardous
10 substance from the facility as defined by Section 101(22) of
11 CERCLA, 42 U.S.C. § 9601(22).

12 31. The conditions present at the Blackbird Mine Site
13 meet the criteria for a non-time-critical removal action in
14 accordance with 40 C.F.R. § 300.415(b), including, but not
15 limited to, actual or potential contamination of sensitive
16 ecosystems due to the presence of copper and cobalt in
17 significantly elevated concentrations in the surface and ground
18 waters at the Site.

19 32. The actual or threatened release of hazardous
20 substances from the Site may present an imminent and substantial
21 endangerment to the public health, welfare, or the environment
22 within the meaning of Section 106(a) of CERCLA, 42 U.S.C.
23 § 9606(a).

24 33. The removal action required by this Order is
25 necessary to protect the public health, welfare, or the
26 environment, and is consistent with the NCP and CERCLA. The

1 removal action is intended to be consistent with the efficient
2 performance of any long term remedial action with respect to the
3 release or the threatened release concerned. EPA has made no
4 final determination as to the long-term, permanent solution for
5 the Site.

7 **V. ORDER¹**

8 34. Based upon the foregoing Findings of Fact,
9 Conclusions of Law, Determinations, and the Administrative Record
10 for this Site, it is hereby ordered and agreed that Respondents
11 shall comply with the following provisions, including, but not
12 limited to, all attachments to this Order, and all documents
13 incorporated by reference into this Order, and perform the
14 following actions:

15 **A. Designation of Contractor, Project Coordinator, and**
16 **Remedial Project Manager**

17 35. Respondents shall perform the removal action
18 required by this Order themselves or retain (a) contractor(s) to
19 perform the removal action. Respondents shall notify EPA of the
20 name(s) and qualification(s) of construction contractor(s) and
21 any other contractor(s) or subcontractor(s) retained to perform
22 the removal action under this Order upon issuance of a Notice of
23 Intent to award the contract(s) to the selected contractor(s).
24 EPA retains the right to disapprove of any, or all, of the
25 contractors and/or subcontractors retained by the Respondents, or

26 ¹ Note: All time frames in the Order are expressed in
27 calendar days except where noted.

1 of Respondents' choice of themselves to do the removal action.
2 If EPA disapproves of a selected contractor, Respondents shall
3 notify EPA of a different contractor's name and qualifications as
4 expeditiously as possible under the circumstances, but no later
5 than thirty (30) days after EPA's disapproval. Respondents shall
6 retain that contractor within fifteen (15) days of EPA's approval
7 of the contractor.

8 36. Respondents have designated Joseph Scheuering and
9 Keith Shell as joint Project Coordinators who shall be
10 responsible for administration of all Respondents' actions
11 required by this Order. Respondents have designated Ray
12 Hathhorne as Alternative Project Coordinator who shall be
13 responsible for administration of all Respondents' actions
14 required by this Order when neither Project Coordinator is
15 available. To the greatest extent possible, at least one
16 Project Coordinator or the Alternative Project Coordinator shall
17 be present on Site or readily available during Site work. EPA
18 retains the right to disapprove of any Project Coordinator or
19 Alternative Project Coordinator named by Respondents. If EPA
20 disapproves of a selected Project Coordinator or Alternative
21 Project Coordinator, Respondents shall retain a different Project
22 Coordinator or Alternative Project Coordinator and shall notify
23 EPA of that person's name, address, telephone number, and
24 qualifications within fifteen (15) business days following EPA's
25 disapproval. EPA will send written communication to both of
26 Respondents' Project Coordinators, provided, however, receipt by
27

1 one of Respondents' Project Coordinators of any notice or
2 communication from EPA relating to this Order shall constitute
3 receipt by all Respondents.

4 37. EPA has designated Fran Allans of EPA Region 10's
5 Idaho Operations Office, Hazardous Waste Section, as its Remedial
6 Project Manager (RPM). Respondents shall direct all submissions
7 required by this Order to the RPM at 1435 N. Orchard, Boise,
8 Idaho, 83706. EPA and Respondents shall have the right, subject
9 to the immediately proceeding paragraph, to change their
10 designated RPM or Project Coordinator. Respondents shall notify
11 EPA seven (7) business days before such a change is made. This
12 initial notification may be orally made but it shall be promptly
13 followed by a written notice.

14 **B. Work to Be Performed**

15 38. Respondents shall perform the response activities
16 set forth in the Statement of Work (SOW), attached as Appendix A
17 to this Order. The work described in the SOW to be performed
18 under this Order in the Bucktail Creek and Meadow/Blackbird Creek
19 drainage basins will be to: (1) relocate or physically stabilize
20 waste rock in the Bucktail Creek drainage basin; (2) relocate,
21 cap, or combination of relocate/cap waste rock/tailings in the
22 Meadow/Blackbird Creek drainage basin above the existing water
23 treatment plant; (3) deposit relocated waste rock and debris flow
24 material that is not used to construct elements of the Early
25 Action into the Blacktail Pit; (4) divert clean surface waters
26 around waste rock and tailings; (5) collect, temporarily store,

1 if necessary, and transport contaminated surface water and
2 groundwater from waste rock, tailings, and adit discharges;
3 (6) relocate debris flow material from Bucktail Creek; and
4 (7) operate and maintain the existing water treatment plant for
5 the treatment of contaminated waters.

6 39. Removal activities shall occur in two phases
7 ("Phase I" and "Phase II") during the 1995 and 1996 construction
8 seasons and shall be completed before the 1997 spring runoff.
9 The Phase II construction schedule will be determined upon
10 completion of the Phase I Construction Completion Report, as
11 approved by EPA. All such work shall be conducted in accordance
12 with CERCLA, the NCP, and EPA guidance. EPA will assist
13 Respondents in identifying such guidance upon request. All work
14 performed under this Order shall be in full accordance with the
15 schedules, standards, specifications, and other requirements of
16 the final design reports and all work plans approved by EPA
17 pursuant to the RI/FS AOC and this Order, as modified pursuant to
18 Section XVIII (Modification).

19 a. Phase I and Phase II Work Plan and Implementation

20 i. **Phase I Removal Activities** (Work elements 3.1.1
21 through 3.1.15 set forth in the SOW)

22 40. On the same day that Respondents notify EPA of the
23 contractor's (or, if EPA disapproves of the contractor, a
24 different contractor's) name and qualifications pursuant to
25 Paragraph 35 of this Order, Respondents shall submit to EPA for
26 approval the draft Work Plan for performing Phase I removal
27 activities as set forth in the SOW. The draft Phase I Work Plan

1 shall provide a description of, and expeditious schedule for,
2 conducting Phase I removal activities during the 1995
3 construction season as required by this Order. The construction
4 schedule for Phase I removal activities shall include, at a
5 minimum, a start and finish date for each element listed in
6 Section 3.1 of the SOW.

7 41. EPA may approve, disapprove, require revisions to,
8 or modify the draft Phase I Work Plan. If EPA requires revisions
9 to the Work Plan, Respondents shall submit a revised Phase I Work
10 Plan within ten (10) days of receipt of EPA's notification of the
11 required revisions. Respondents shall implement the Phase I Work
12 Plan as finally approved, in writing, by EPA in accordance with
13 the schedule approved by EPA. Once approved, or approved with
14 modifications, the Phase I Work Plan, the schedule, and any
15 subsequent modifications shall be fully enforceable under this
16 Order. Within sixty (60) days after notification by Respondents
17 of completion of Phase I construction activities, Respondents
18 shall submit for EPA review and approval a Phase I Construction
19 Completion Report as set forth in the SOW.

20 ii. **Phase II Removal Activities** (Work elements 3.2.1
21 through 3.2.11 set forth in the SOW)

22 42. On the same day that Respondents notify EPA of the
23 contractor's (or, if EPA disapproves of the contractor, a
24 different contractor's) name and qualifications pursuant to
25 Paragraph 35 of this Order, Respondents shall submit to EPA for
26 approval the draft Work Plan for performing Phase II removal
27 activities as set forth in the SOW. The draft Phase II Work Plan

1 shall provide a description of, and expeditious schedule for,
2 conducting Phase II removal activities during the 1996
3 construction season, and completing such activities no later than
4 the spring runoff of 1997, as required by this Order. The
5 construction schedule for Phase II removal activities shall
6 include, at a minimum, a start and finish date for each element
7 listed in Section 3.2 of the SOW.

8 43. Following receipt of the Phase I Construction
9 Completion Report, EPA may approve, disapprove, require revisions
10 to, or modify the draft Phase II Work Plan. If EPA requires
11 revisions to the Phase II Work Plan, Respondents shall submit a
12 revised Phase II Work Plan within ten (10) days of receipt of
13 EPA's notification of the required revisions. Respondents shall
14 implement the Phase II Work Plan as finally approved, in writing,
15 by EPA in accordance with the schedule approved by EPA. Once
16 approved, or approved with modifications, the Phase II Work Plan,
17 the schedule, and any subsequent modifications shall be fully
18 enforceable under this Order.

19 44. Respondents shall notify EPA at least forty-eight
20 (48) hours prior to commencing on-Site work pursuant to both the
21 EPA-approved Phase I or Phase II Work Plan. Work undertaken
22 after the initial notice for Phase I and Phase II activities that
23 is consistent with an approved or modified (pursuant to Section
24 XVIII [Modification] of this Order) Work Plan shall not require
25 additional notice under this paragraph. Respondents shall not
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27

1 commence or undertake any removal action at the Site without
2 prior EPA approval.

3 b. Health and Safety Plan

4 45. For both Phase I and Phase II removal activities,
5 within five (5) days after Respondents notify EPA of the
6 contractor's name and qualifications pursuant to Paragraph 35 of
7 this Order, Respondents shall submit for EPA review and comment
8 plans that ensure the protection of the public health and safety
9 during performance of activities under this Order. The plans
10 shall be prepared in accordance with EPA's current Standard
11 Operating Safety Guide, dated November 1984, and currently
12 updated July 1988. In addition, the plans shall comply with all
13 current applicable Occupational Safety and Health Administration
14 (OSHA) regulations found at 29 C.F.R. Part 1910. Respondents
15 shall incorporate all changes to the plans recommended by EPA,
16 and implement the plans during the pendency of Phase I and Phase
17 II removal activities.

18 c. Quality Assurance and Sampling

19 46. All sampling and analyses performed pursuant to
20 this Order shall conform with the specifications in the final
21 design report, and to EPA direction, approval, and guidance
22 regarding sampling, quality assurance/quality control (QA/QC),
23 data validation, and chain-of-custody procedures. Respondents
24 shall ensure that the laboratory used to perform the analyses
25 participates in a QA/QC program that complies with the
26 appropriate EPA guidance. Respondents shall follow the following

documents, as appropriate, as guidance for QA/QC and sampling:
"Quality Assurance/Quality Control Guidance for Removal
Activities: Sampling QA/QC Plan and Data Validation Procedures",
OSWER Directive Number 9360.4-01; "Environmental Response Team
Standard Operating Procedures", OSWER Directive Numbers 9360.4-02
through 9360.4-08.

47. Upon request by EPA, Respondents shall have such a
laboratory analyze samples submitted by EPA for quality-assurance
monitoring. Respondents shall provide to EPA the QA/QC
procedures followed by all sampling teams and laboratories
performing data collection and/or analysis. Upon request by EPA,
respondents shall allow EPA or its authorized representatives to
take split and/or duplicate samples of any samples collected by
Respondents while performing work under this Order.

d. Post-Removal Site Control and Operation and Maintenance.

48. For both Phase I and Phase II removal activities,
Respondents shall implement the final plans for post removal site
control approved by EPA in accordance with Paragraphs 68 and 69
of the RI/FS AOC. In addition, Respondents shall implement the
final plan for operation and maintenance approved by EPA as part
of the final design report for Phase I and Phase II removal
activities.

e. Reporting

49. Respondents shall submit a written progress report
to EPA concerning actions undertaken pursuant to this Order every
thirty (30) days after the date of receipt of EPA's approval of

1 the Phase I Work Plan until completion of Phase II construction
2 or in accordance with the EPA approved Operation and Maintenance
3 Plan. These reports shall describe all significant developments
4 during the preceding period, including the actions performed and
5 any problems encountered, analytical data received during the
6 reporting period, and the developments anticipated during the
7 next reporting period including a schedule of actions to be
8 performed, anticipated problems, and planned resolutions of past
9 or anticipated problems.

10 50. Any Respondents that own any portion of the Site
11 shall, at least thirty (30) days prior to the conveyance of any
12 interest in real property at the Site, give written notice that
13 the property is subject to this Order to the transferee and
14 written notice to EPA and the State of the proposed conveyance,
15 including the name and address of the transferee. Respondents
16 agree to require that its successor comply with the immediately
17 proceeding sentence and Section V(B)(g) of this Order (Access to
18 Property and Information).

19 f. Final Report

20 51. Within ninety (90) days after completion of all
21 removal activities required under this Order, Respondents shall
22 submit for EPA review and approval a final report summarizing the
23 actions taken to comply with this Order. The final report shall
24 conform with the requirements set forth in Section 300.165 of the
25 NCP entitled "OSC Reports". The final report shall include a
26 good faith estimate of total costs or a statement of actual costs

1 incurred in complying with the Order, a listing of quantities and
2 types of materials removed off-Site or handled on-Site, a
3 discussion of removal and disposal options considered for those
4 materials, a listing of the ultimate destination of the results
5 of sampling and analyses performed, and accompanying appendices
6 containing all relevant documentation generated during the
7 removal action (e.g., manifests, invoices, bills, contracts, and
8 permits). The final report shall also include the following
9 certification signed by a person who supervised or directed the
10 preparation of that report:

11 Under penalty of law, I certify that to the best of my
12 knowledge, after appropriate inquiries of all relevant
13 persons involved in the preparation of the report, the
14 information submitted is true, accurate, and complete.
15 I am aware that there are significant penalties for
16 submitting false information, including the possibility
17 of fine and imprisonment for knowing violations.

18 g. Access to Property and Information

19 52. Respondents shall provide and/or obtain access to
20 the Site and off-Site areas to which access is necessary to
21 implement this Order, and provide access to all records and
22 documentation related to the conditions at the Site related to
23 this Order and the actions conducted pursuant to this Order.
24 Such access shall be provided to FS employees, and to EPA
25 employees, contractors, agents, consultants, designers,
26 representatives, and State of Idaho representatives. These
27 individuals shall be permitted to move freely at the Site and
28 appropriate off-Site areas in order to conduct actions which EPA
determines to be necessary. All persons with access to the Site

1 under this paragraph shall comply with all health and safety
2 plans accepted by EPA pursuant to Paragraph 45, and supply, if
3 necessary, proof of Hazardous Waste Operation and Emergency
4 Response Training. Respondents shall submit to EPA, upon
5 receipt, the results of all sampling or tests and all other data
6 generated by Respondents or their contractor(s), or on the
7 Respondents' behalf related to implementation of this Order. EPA
8 and FS will provide Respondents copies of all sampling tests and
9 other data generated by EPA or its authorized representatives
10 during implementation of this Order.

11 53. Where action under this Order is to be performed
12 in areas owned by, or in possession of, someone other than
13 Respondents, Respondents shall use their best efforts to obtain
14 all necessary access agreements within thirty (30) days after the
15 effective date of this Order, or as otherwise specified, in
16 writing, by the RPM. Respondents shall immediately notify EPA if
17 after using their best efforts they are unable to obtain such
18 agreements. Respondents shall describe, in writing, their
19 efforts to obtain access to the extent necessary to effectuate
20 the response actions described herein. Respondents shall
21 reimburse EPA for all costs and attorney fees incurred by the
22 United States in obtaining such access.

23 h. Record Retention, Documentation, Availability of
24 Information

25 54. Respondents shall preserve all documents and
26 information relating to work performed under this Order for
27 ten (10) years following completion of the removal actions

1 required by this Order. At the end of this 10-year period and
2 thirty (30) days before any document or information is destroyed,
3 Respondents shall notify EPA that such documents and information
4 are available to EPA for inspection, and, upon request, shall
5 provide the originals or copies of such documents and information
6 to EPA. In addition, Respondents shall provide documents and
7 information retained under this section at any time before
8 expiration of the 10-year period at the written request of EPA.

9 55. Respondents may assert a business confidentiality
10 claim pursuant to 40 C.F.R. § 2.203(b) with respect to part or
11 all of any information submitted to EPA pursuant to this Order,
12 provided such claim is allowed by Section 104(e)(7) of CERCLA,
13 42 U.S.C. § 9604(e)(7). If no such claim accompanies the
14 information when it is received by EPA, EPA may make it available
15 to the public without further notice to Respondents.

16 i. Off-Site Shipments

17 56. Any hazardous substances, pollutants, or
18 contaminants removed off-Site pursuant to this Order for
19 treatment, storage, or disposal shall be treated, stored, or
20 disposed of at a facility in compliance, as determined by EPA in
21 Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), and the
22 Procedures for Implementing Off-Site Response Actions, 40 C.F.R.
23 § 300.440. Regional Offices will provide information on the
24 acceptability of a facility under Section 121(d)(3) of CERCLA,
25 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Work done
26 consistent with the SOW as written on the effective date of this

1 Order shall not constitute off-Site disposal under this
2 paragraph, provided, however, the SOW or the Phase I or Phase II
3 Work Plans may be modified to include work that may constitute
4 off-Site disposal under this paragraph.

5 j. Compliance With Other Laws

6 57. Respondents shall perform all actions required
7 pursuant to this Order in accordance with all applicable local,
8 state, and federal laws and regulations, except that, as provided
9 in Section 121(e) of CERCLA, 42 U.S.C. § 9621(e), no federal,
10 state, or local permit shall be required for the portion of the
11 activities conducted entirely "on-Site" (as defined by 40 C.F.R.
12 § 300.5). All on-Site actions required pursuant to this Order
13 shall be conducted in accordance with 40 C.F.R. § 300.415(i).

14 (See "The Superfund Removal Procedures: Guidance on the
15 Consideration of Applicable or Relevant and Appropriate
16 Requirements (ARARs) During Removal Actions", OSWER Directive
17 No.9360.3-02, August 1991).

18 k. Emergency Response and Notification of Releases

19 58. If any incident, or change in Site conditions,
20 during the actions conducted pursuant to this Order causes or
21 threatens to cause a release, in addition to releases other than
22 those described in this Order, of hazardous substances from the
23 Site or an endangerment to the public health, welfare, or the
24 environment, Respondents shall immediately take all appropriate
25 action. Respondents shall take these actions in accordance with
26 all applicable provisions of this Order, including, but not

1 limited to, the Health and Safety Plan, in order to prevent,
2 abate, or minimize such release or endangerment caused or
3 threatened by the release. Respondents shall also immediately
4 notify EPA's RPM or, in the event of her unavailability, shall
5 notify the EPA Region 10 Site Response Section at (206) 553-6901
6 of the incident or Site conditions. If Respondents fail to
7 respond, EPA may respond to the release or endangerment and
8 reserve the right to pursue cost recovery.

9 59. In addition, in the event of any additional
10 release of a hazardous substance from the Site other than those
11 described in this Order, Respondents shall immediately notify
12 EPA'S RPM and the National Response Center at (800) 424-8802.
13 Respondents shall submit a written report to EPA within seven (7)
14 days after each release, setting forth the events that occurred
15 and the measures taken or to be taken to mitigate any release or
16 endangerment caused or threatened by the release and to prevent
17 the reoccurrence of such a release. This reporting requirement
18 is in addition to, not in lieu of, reporting under Section 103(c)
19 of CERCLA, 42 U.S.C. § 9603(c), and Section 304 of the Emergency
20 Planning and Community Right-To-Know Act of 1986, 42 U.S.C.
21 § 11001, et. seq.

22 23 VI. AUTHORITY OF THE EPA REMEDIAL PROJECT MANAGER (RPM)

24 60. The RPM shall be responsible for overseeing the
25 Respondents' implementation of this Order. The RPM shall have
26 the authority vested in an On-Scene Coordinator (OSC) and RPM by

1 the NCP, including the authority to halt, conduct, or direct any
2 work required by this Order, or to direct any other removal
3 action undertaken at the Site. Absence of the RPM from the Site
4 shall not be cause for stoppage of work unless specifically
5 directed by the RPM.

6 7 VII. REIMBURSEMENT OF COSTS

8 61. Respondents will be billed and shall pay in the
9 manner detailed below, for reimbursement of past response costs
10 paid by EPA not inconsistent with the NCP. Past response costs
11 are all unreimbursed costs, including, but not limited to, direct
12 and indirect costs, that EPA, its employees, agents, contractors,
13 consultants, and other authorized representatives incurred and
14 paid with regard to the Site between June 1, 1994, and the
15 effective date of this Order. In addition, Respondents shall
16 reimburse EPA for all future response costs, not inconsistent
17 with the NCP, incurred by EPA. Future response costs are all
18 costs, including, but not limited to, direct and indirect costs,
19 that EPA incurs in reviewing or developing plans, reports, and
20 other items pursuant to this Order, verifying the work, or
21 otherwise implementing, overseeing, or enforcing this Order.
22 Such future response costs are covered by and shall be paid to
23 EPA in accordance with Section XXIV (Reimbursement of Oversight
24 Costs) of the November 18, 1994, RI/FS AOC.

25 62. Respondents shall, within forty-five (45) days of
26 receipt of the bill for unreimbursed past response costs, remit a

1 cashier's or certified check for the amount of the bill made
2 payable to the "Hazardous Substance Superfund", to the U.S. EPA
3 Superfund, P.O. Box 360903M, Pittsburgh, Pennsylvania, 15251, and
4 referencing the EPA Region and Site/Spill ID # 10-P1. Enclosed
5 with the bill will be an itemized Superfund Cost Organization
6 Recovery Enhancement System Report, including payroll costs,
7 contractor costs, travel costs, and other direct and indirect
8 costs incurred and paid by EPA. Upon the request of Respondents,
9 and at Respondents' expense, copies of receipts and other
10 documents evidencing such expenditures will be provided so long
11 as appropriate confidentiality agreements have been entered into
12 by Respondents. Respondents shall simultaneously transmit a copy
13 of the check to EPA Region 10 Docket Hearings Clerk (SO-155),
14 1200 6th Avenue, Seattle, Washington, 98101. Payments shall be
15 designated as "Unreimbursed Past Response Costs - Blackbird Mine
16 Site" and shall reference the payor's name and address, the EPA
17 site identification number (10-P1), and the title and docket
18 number of this Order.

19 63. In the event that the payment for past response
20 costs is not made within forty-five (45) days of Respondents'
21 receipt of the bill, Respondents shall pay interest on the unpaid
22 balance.

23 64. Interest is established at the rate specified in
24 Section 107(a) of CERCLA, 42 U.S.C. § 9607(a). The interest to
25 be paid on past response costs shall begin to accrue on the date
26 Respondents receive the bill for such costs. Interest shall

1 accrue at the rate specified through the date of the payment.
2 Payments of interest made under this paragraph shall be in
3 addition to such other remedies or sanctions available to the
4 United States by virtue of Respondents' failure to make timely
5 payments under this section.

6 65. Respondents may dispute all or part of the bill
7 for unreimbursed response costs submitted under this Order, if
8 Respondents allege that EPA has made an accounting error, or if
9 Respondents allege that a cost item is inconsistent with the NCP,
10 or that the expenses have not been incurred and paid.

11 66. If any dispute over costs is resolved before
12 payment is due, the amount due will be adjusted as necessary. If
13 the dispute is not resolved before payment is due, Respondents
14 shall pay the full amount of the uncontested costs into the
15 Hazardous Substance Fund as specified above on or before the due
16 date. Within the same time period, Respondents shall pay the
17 full amount of the contested costs into an interest-bearing
18 escrow account. Respondents shall simultaneously transmit a copy
19 of both checks to the RPM. Respondents shall ensure that the
20 prevailing party or parties in the dispute shall receive the
21 amount upon which they prevailed from the escrow funds plus
22 interest within ten (10) days after the dispute is resolved.

23 24 **VIII. DISPUTE RESOLUTION**

25 67. Unless otherwise provided herein, any dispute
26 between EPA and Respondents arising under this Order shall be

1 resolved as follows: If the Respondents object to any EPA notice
2 of disapproval or requirement made pursuant to this Order,
3 Respondents shall notify EPA's RPM, in writing, of its objections
4 within fourteen (14) days of receipt of the disapproval notice or
5 requirement. Respondents' written objections shall define the
6 dispute, state the basis of Respondents' objections, and be sent
7 by certified mail, return receipt requested. EPA and the
8 Respondents then have an additional fourteen (14) days to reach
9 agreement. If an agreement is not reached within fourteen (14)
10 days, Respondents may request a determination by the Program
11 Manager of EPA Region 10's Superfund Remedial Branch. The
12 Program Manager's determination is EPA's final decision.
13 Respondents shall proceed in accordance with EPA's final decision
14 regarding the matter in dispute, regardless of whether
15 Respondents agree with the decision. If the Respondents do not
16 agree to perform or do not actually perform the work in
17 accordance with EPA's final decision, EPA reserves the right in
18 its sole discretion to conduct the work itself, to seek
19 reimbursement from the Respondents, to seek enforcement of the
20 decision, to seek stipulated penalties, and/or to seek any other
21 appropriate relief. No EPA decision made pursuant to this
22 section shall constitute a final agency action giving rise to
23 judicial review.

24 68. While a matter is pending in dispute resolution,
25 Respondents are not relieved of their obligations to perform and
26 conduct activities and submit deliverables in accordance with the

1 schedule set forth in any work plan or design plan approved by
2 EPA. The invocation of dispute resolution does not stay
3 stipulated penalties under this Order.
4

5 IX. FORCE MAJEURE

6 69. Respondents agree to perform all requirements
7 under this Order within the time limits established under this
8 Order, unless the performance is delayed by a Force Majeure. For
9 purposes of this Order, a Force Majeure is defined as any event
10 arising from causes beyond the control of Respondents and of any
11 entity controlled by Respondents, including their contractors and
12 subcontractors, that delays or prevents performance of any
13 obligation under this Order despite Respondents' best efforts to
14 fulfill the obligation. Force Majeure does not include financial
15 inability to complete the work or increased cost of performance.

16 70. Respondents shall notify EPA orally within
17 forty-eight (48) hours after the event, and in writing within
18 five (5) days after Respondents become or should have become
19 aware of events which may constitute a Force Majeure. Such
20 notice shall: identify the event causing the delay or anticipated
21 length of delay, including necessary demobilization and
22 remobilization; state the measures taken or to be taken to
23 minimize the delay; and estimate the timetable for implementation
24 of the measures. Respondents shall take all reasonable measures
25 to avoid and minimize the delay. Failure to comply with the
26
27

notice provision of this action shall waive any claim of Force Majeure by the Respondents.

71. If EPA determines a delay in performance of a requirement under this Order is or was attributable to a Force Majeure, the time period for performance of that requirement shall be extended as deemed necessary by EPA and the delay shall not be a violation of this Order. Such an extension shall not alter Respondents' obligation to perform or complete other tasks required by the Order which are not directly affected by the Force Majeure.

X. STIPULATED AND STATUTORY PENALTIES

72. For each day, or portion thereof, that Respondents fail to fully perform any requirement of this Order, in accordance with the schedule established pursuant to this Order, EPA may assess the Stipulated Penalties against Respondents in accordance with this Section.

a. The following stipulated penalties shall be payable per violation per day to EPA for any Major Noncompliance that is identified in Subparagraph b:

| <u>Penalty Per Violation Per Day</u> | <u>Period of Noncompliance</u> |
|--|--------------------------------|
| \$ 2,500 | 1st through 7th day |
| \$ 5,000 | 8th through 14th day |
| \$ 7,500 | 15th through 30th day |
| \$10,000 | 31st day and beyond |

b. EPA may assess stipulated penalties listed in Paragraph 72 for the following:

1 i. Failure to perform the work required under the
2 Statement of Work (Appendix A) or in a Work Plan
approved by EPA pursuant to this Order;

3 ii. Failure to submit to EPA a Final Report as required
4 by Paragraph 51; and

5 iii. Failure to properly monitor and maintain the
6 diversion, transport, and storage structures, the water
7 treatment plant, and any other aspects of the response
8 action in the Bucktail and Meadow/Blackbird drainage
basins that are implemented under this Order, as
specified in the Post Removal Site Control and
Operation and Maintenance requirements set forth in
Paragraph 48 of this Order.

9
10 73. The following stipulated penalties shall be
11 payable per violation per day to EPA for failure to submit timely
12 reports or other written documents without material defects, or
13 to otherwise comply with terms of this Order not covered by
Paragraph 72:

| <u>Penalty Per Violation</u> <u>Per Day</u> | <u>Period of Noncompliance</u> |
|--|--------------------------------|
| \$ 1,000 | 1st through 7th day |
| \$ 2,000 | 8th through 14th day |
| \$ 3,000 | 15th through 30th day |
| \$ 5,000 | 31st day and beyond |

18
19 74. All penalties shall begin to accrue on the day
20 after complete performance is due for violations involving
21 failure to meet a deadline under this Order. For violations
22 involving failure to otherwise comply with any other requirement
23 of this Order, all penalties shall begin to accrue on the date a
24 notice of the noncompliance is received by Respondents. All
25 penalties shall continue to accrue through the final day of the
26 correction of the noncompliance or completion of the activity.

1 Nothing herein shall prevent the simultaneous accrual of separate
2 penalties for separate violations of this Order.

3 75. Upon receipt of written demand by EPA, Respondents
4 shall make payment to EPA within thirty (30) days. For late
5 payments, interest shall begin to accrue on the date such payment
6 is due.

7 76. Respondents may dispute EPA's right to the
8 assessed amount of penalties by invoking the dispute resolution
9 procedures under Section VIII herein. Penalties shall accrue but
10 need not be paid during the dispute resolution period. If
11 Respondents do not prevail upon resolution, all penalties shall
12 be due to EPA within thirty (30) days of resolution of the
13 dispute. If Respondents prevail upon resolution, no penalties
14 shall be paid.

15 77. Even if violations are simultaneous, separate
16 penalties shall accrue for separate violations of this Order.
17 The payment of penalties shall not alter in any way Respondents'
18 obligations to complete the performance of the work required
19 under this Order.

20 78. Violation of any provision of this Order may
21 subject Respondents to civil penalties of up to twenty-five
22 thousand dollars (\$ 25,000.00) per violation per day, as provided
23 in Section 106(b)(1) of CERCLA, 42 U.S.C. § 9606(b)(1).
24 Respondents may also be subject to punitive damages in an amount
25 up to three (3) times the amount of any cost incurred by the
26 United States as a result of such violation, as provided in

1 Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). Should
2 Respondents violate this Order or any portion hereof, EPA may
3 carry out the required actions unilaterally, pursuant to
4 Section 104 of CERCLA, 42 U.S.C. § 9604, and/or may seek judicial
5 enforcement of this Order pursuant to Section 106 of CERCLA,
6 42 U.S.C. § 9606.

7 79. If Respondents fail to pay stipulated penalties
8 when due, the United States may institute a proceeding to collect
9 the penalties, as well as interest, at the rate established
10 pursuant to Section 107(a) of CERCLA, 42 U.S.C. § 9607(a). The
11 stipulated penalties established under this Order shall be the
12 exclusive mechanism for the assessment and collection of
13 penalties, unless EPA elects, in lieu of demanding such
14 stipulated penalties, to seek civil penalties under CERCLA.

16 XI. RESERVATION OF RIGHTS

17 80. Except as specifically provided in this Order,
18 nothing herein shall limit the power and authority of EPA or the
19 United States to take, direct, or order all actions necessary to
20 protect public health, welfare, or the environment or to prevent,
21 abate, or minimize an actual or threatened release of hazardous
22 substances, pollutants, or contaminants, or hazardous or solid
23 waste on, at, or from the Site. Further, nothing herein shall
24 prevent EPA from seeking legal or equitable relief to enforce the
25 terms of this Order, from taking other legal or equitable action
26 as it deems appropriate and necessary, or from requiring

1 Respondents in the future to perform additional activities
2 pursuant to CERCLA or any other applicable law. Except as
3 specifically provided in the Consent Decree, EPA reserves the
4 right to bring an action against Respondents under Section 107 of
5 CERCLA, 42 U.S.C. § 9607, for recovery of any response costs
6 incurred by EPA related to this Order or the Site and not
7 reimbursed by Respondents. Respondents reserve all rights they
8 may have to oppose and defend against such claims and actions.
9 Nothing in this Order releases Respondents from liability for FS
10 or NOAA response costs.

11 81. Respondents expressly reserve all claims they have
12 asserted against the United States in the litigation before the
13 United States District Court for the District of Idaho, State of
14 Idaho, et al. v. M.A. Hanna Company, et al., Civ. No. 83-4179
15 (D.Idaho), and United States v. Blackbird Mining Company Limited
16 Partnership, et al., Case No. CV 93-235-E-HLR (D. Idaho).

17 18 XII. OTHER CLAIMS

19 82. By issuance of this Order, the United States and
20 EPA assume no liability for injuries or damages to persons or
21 property resulting from any acts or omissions of Respondents.
22 The United States or EPA shall not be deemed a party to any
23 contract entered into by the Respondents or their directors,
24 officers, employees, agents, successors, representatives,
25 assigns, contractors, or consultants in carrying out actions
26 pursuant to this Order.

1 83. Except as expressly provided in Section XIII
2 (Covenant Not to Sue) and the Consent Decree, nothing in this
3 Order constitutes a satisfaction or release from any claim or
4 cause of action against the Respondents or any person not a party
5 to this Order, for any liability such person may have under
6 CERCLA, other statutes, or the common law, including, but not
7 limited to, any claims of the United States for costs, damages,
8 and interest under Sections 106(a) and 107(a) of CERCLA,
9 42 U.S.C. §§ 9606(a) and 9607(a).

10 84. This Order does not constitute a preauthorization
11 of funds under Section 111(a)(2) of CERCLA, 42 U.S.C.
12 § 9611(a)(2). Respondents waive any claim to payment under
13 Sections 106(b), 111, and 112 of CERCLA, 42 U.S.C. §§ 9606(b),
14 9611, and 9612, against the United States or the Hazardous
15 Substance Superfund arising out of any action performed under
16 this Order.

17 85. No action or decision by EPA pursuant to this
18 Order shall give rise to any right to judicial review except as
19 set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).
20

21 XIII. COVENANT NOT TO SUE

22 86. Upon issuance of the EPA notice referred to in
23 Section XIX (Notice of Completion), EPA covenants not to sue
24 Respondents for judicial imposition of damages or civil penalties
25 for any failure to perform obligations agreed to in this Order
26

1 except for continuing obligations required under this Order and
2 as otherwise reserved herein.

3 87. Upon payment of costs pursuant to Section VII
4 (Reimbursement of Costs), EPA covenants not to sue or to take
5 administrative action against Respondents under Section 107(a) of
6 CERCLA, 42 U.S.C. § 9607(a), for recovery of such costs.

7 88. Except as otherwise reserved herein, Respondents
8 covenant not to sue and agree not to assert any claims or causes
9 of action against EPA arising out of response activities under
10 this Order.

11 89. These covenants not to sue are conditioned upon
12 the complete and satisfactory performance by Respondents of their
13 obligations under this Order. These covenants not to sue extend
14 only to obligations under this Order. These covenants not to sue
15 extend only to the Respondents and do not extend to any other
16 person.

17 18 **XIV. CONTRIBUTION PROTECTION**

19 90. With regard to claims for contribution against
20 Respondents for matters addressed in this Order, the Parties
21 hereto agree that Respondents are entitled to protection from
22 contribution actions or claims to the extent provided by
23 Section 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C.
24 §§ 9613(f)(2) and 9622(h)(4). Nothing in this Order precludes
25 the United States or Respondents from asserting any claims,

1 causes of action, or demands against any persons not parties to
2 this Order for indemnification, contribution, or cost recovery.

3
4 **XV. INDEMNIFICATION**

5 91. Except as provided in Paragraph 81 of this Order,
6 Respondents agree to indemnify, save and hold harmless the United
7 States, its officials, agents, contractors, subcontractors,
8 employees, and representatives from any and all claims or causes
9 of action: (A) arising from, or on account of, acts or omissions
10 of Respondents, Respondents' officers, heirs, directors,
11 employees, agents, contractors, subcontractors, receivers,
12 trustees, successors, or assigns, in carrying out actions
13 pursuant to this Order; and (B) for damages or reimbursement
14 arising from or on account of any contract, agreement, or
15 arrangement between (any one or more of) Respondents, and any
16 persons for performance of work on or relating to the Site,
17 including claims on account of construction delays. In addition,
18 Respondents agree to pay the United States all costs incurred by
19 the United States, including litigation costs arising from or on
20 account of claims made against the United States based on any of
21 the acts or omissions referred to in this paragraph.

22
23 **XVI. INSURANCE**

24 92. At least seven (7) days prior to commencing any
25 on-Site work under this Order, Respondents shall secure, and
26 shall maintain for the duration of this Order, comprehensive

1 general liability insurance and automobile insurance with limits
2 of one million dollars, combined single limit. Within the same
3 time period, Respondents shall provide EPA with certificates of
4 such insurance and a copy of each insurance policy. If
5 Respondents demonstrate by evidence satisfactory to EPA that any
6 contractor or subcontractor maintains insurance equivalent to
7 that described above, or insurance covering some or all of the
8 same risks but in an equal or lesser amount, then Respondents
9 need provide only that portion of the insurance described above
10 which is not maintained by such contractor or subcontractor.
11

12 **XVII. ASSURANCE OF ABILITY TO COMPLETE WORK**

13 93. Either within thirty (30) days of entry of the
14 Consent Decree or within thirty (30) days of the effective date
15 of this Order, whichever is earlier, Respondents shall establish
16 and maintain financial security in the amount of \$ 20 million to
17 finance implementation of the activities required by this Order.
18 If financial security is provided under the Consent Decree, such
19 financial security shall be provided in accordance with
20 Section XVII (Assurance of Ability to Complete Work) therein. If
21 financial security is provided under this Order, then such
22 financial security shall be provided in one of the forms set
23 forth below which shall be in lieu of any financial assurance
24 under the Consent Decree. In addition, if, at any time during
25 the pendency of this Order, either estimated or actual costs of
26 full compliance with this Order exceed \$ 20 million, Respondents
27

1 shall establish and maintain additional financial security for
2 the difference between the estimated or actual costs and
3 \$ 20 million in one of the following forms:

- 4 (a) A surety bond guaranteeing performance of the
5 activities required by this Order;
- 6 (b) One or more irrevocable letters of credit
7 equalling the total estimated cost of the
8 activities required by this Order;
- 9 (c) A trust fund;
- 10 (d) A guarantee to perform the activities required by
11 this Order by one or more parent corporations or
12 subsidiaries, or by one or more unrelated
13 corporations that have a substantial business
14 relationship with at least one of the Respondents;
15 or
- 16 (e) A demonstration that one or more of the
17 Respondents satisfy the requirements of
18 40 C.F.R. § 264.143(f).

19 94. If Respondents seek to demonstrate the ability to
20 complete the activities required by this Order through a third
21 party pursuant to Paragraph 93(d) of this Order, Respondents
22 shall demonstrate that the guarantor satisfies the requirements
23 of 40 C.F.R. § 264.143(f). If Respondents seek to demonstrate
24 their ability to complete the activities required by this Order
25 by means of the corporate guarantee or the financial test
26 pursuant to Paragraph 93(d) or (e) of this Order, they shall
27 resubmit sworn statements conveying the information required by
28 40 C.F.R. § 264.143(f) annually, on the anniversary of the
effective date of this Order. In the event that EPA determines
at any time that the financial assurances provided pursuant to
this Section are inadequate, Respondents shall, within

1 thirty (30) days of receipt of notice of EPA's determination,
2 obtain and present to EPA for approval one of the other forms of
3 financial assurance listed in Paragraph 93 of this Order. Upon
4 written request by Respondents, the financial security required
5 by Paragraph 93 of this Order will be reduced by an amount that
6 EPA determines, in its discretion, to be equal to the proportion
7 that the completed work bears to the current total estimated
8 costs for the activities required by this Order. Respondents
9 inability to demonstrate financial inability to complete the
10 activities required by this Order shall not excuse performance of
11 such activities by Respondents.

12 95. While Hanna is jointly and severally obligated
13 pursuant to Paragraph 7 of this Order, Noranda assumes and
14 guarantees all of Hanna's obligations under this Order,
15 including, but not limited to, obligations to perform removal
16 actions, pay response costs and provide financial assurances,
17 except for obligations Hanna may have to provide notice
18 concerning the conveyance of an interest in real property at the
19 Site under Paragraph 50, to provide Site access and records
20 access under Paragraph 52, and Hanna's obligations under
21 Paragraphs 54 and 55.

22 23 XVIII. MODIFICATION

24 96. Modifications to any plan, schedule, or Statement
25 of Work may be made, in writing, by the RPM or at the RPM's oral
26 direction. If the RPM makes an oral modification, it will be

1 memorialized in writing within seven (7) days; provided, however,
2 that the effective date of the modification shall be the date of
3 the RPM's oral direction. Any other requirements of the Order
4 may be modified, in writing, by mutual agreement of the parties.

5 97. Respondents shall seek permission from EPA to
6 deviate from any approved Work Plan, schedule, or Statement of
7 Work, promptly upon becoming aware of the need for deviation. If
8 such permission is sought verbally, it shall be memorialized, in
9 writing, by Respondents' Project Coordinator within seven (7)
10 days and shall outline the proposed deviation and its good cause
11 basis. In the event the Consent Decree is not entered by
12 September 1, 1995, EPA and Respondents agree to discuss
13 modifications to this Order pursuant to this Section XVIII which
14 may be appropriate given non-entry of the Consent Decree.

15 98. No informal advice, guidance, suggestion, or
16 comment by EPA regarding reports, plans, specifications,
17 schedules, or any other writing submitted by Respondents shall
18 relieve Respondents of their obligations to obtain such formal
19 approval as may be required by this Order, and to comply with all
20 requirements of this Order unless it is formally modified.

21 22 XIX. NOTICE OF COMPLETION

23 99. When EPA, in consultation with FS, determines,
24 after EPA's review of the Final Report, that all removal actions
25 have been fully performed in accordance with this Order, with the
26 exception of any continuing obligations required by this Order,

1 including all requirements, EPA will provide notice to
2 Respondents. If EPA, in consultation with FS, determines that
3 any removal actions have not been completed in accordance with
4 this Order, EPA will notify Respondents, provide a list of the
5 deficiencies, and require that Respondents modify the Work Plan,
6 if appropriate, in order to correct such deficiencies.
7 Respondents shall implement the modified and approved Work Plan
8 and shall submit a modified Final Report in accordance with the
9 EPA notice. Failure by Respondents to implement the approved
10 modified Work Plan shall be a violation of this Order.

11
12 **XX. SEVERABILITY**

13 100. If a court issues an order that invalidates any
14 provision of this Order or finds that Respondents have sufficient
15 cause not to comply with one or more provisions of this Order,
16 Respondents shall remain bound to comply with all provisions of
17 this Order not invalidated or determined to be subject to a
18 sufficient cause defense by the court's order.

19
20 **XXI. EFFECTIVE DATE**

21 101. The effective date of this Order shall be the date
22 it is signed by EPA.

23 102. The undersigned representatives of Respondents
24 certify that they are fully authorized to enter into the terms
25 and conditions of this Order and to legally bind the party they
26 represent to this Order.

1 It is so ORDERED and Agreed this 14 day of June, 1995.

2
3 By:

4 M. F. Gearheard
MICHAEL F. GEARHEARD, Manager
5 Superfund Remedial Branch

6 Date: 6/14/95
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1 The signatories to this Order certify that they are fully
2 authorized to execute and legally bind parties they represent to
3 this Order.

4 FOR M.A. HANNA COMPANY, HANNA SERVICES COMPANY (now known as
5 Rojet Enterprises, Inc.):

6 Agreed this 9TH day of JUNE, 1995.

7 BY: John S. Pyke Jr.

8 Title Vice President, General Counsel and Secretary
9

06/12/95 MON 17:42 FAX 4189823543

NORANDA

002

1 The signatories to this Order certify that they are fully
2 authorized to execute and legally bind parties they represent to
3 this Order.

4 FOR NORANDA MINING, INC., NORANDA EXPLORATION, INC., BLACKBIRD
5 MINING COMPANY LIMITED PARTNERSHIP:

6 Agreed this 12 day of June, 1995.

7 By: 

8 Title Vice President

1 The signatories to this Order certify that they are fully
2 authorized to execute and legally bind parties they represent to
3 this Order.

4 FOR ALUMET CORPORATION:

5 Agreed this 12th day of June, 1995.

6
7 By: P. P. Wolf

8 Title Vice President
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28 AOC FOR REMOVAL ACTION AND RECOVERY OF COSTS
BLACKBIRD MINE SITE - Page 49 of 49

** TOTAL PAGE.002 **

1
2
3 CERTIFICATE OF SERVICE
4

5 I hereby certify that under penalty of perjury under
6 the laws of the United States that the original of the
7 Administrative Order on Consent for Removal Action and Recovery
8 of Costs (AOC) at the Blackbird Mine Site was hand-delivered to
9 the Regional Hearings Clerk. Copies of the AOC were sent by
10 Federal Express delivery to the addressees below:
11

12 M.A. Hanna Company
13 The Corporation Trust Company
14 1209 Orange Street
15 Wilmington, Delaware 19801

16 Noranda Mining, Inc.
17 The Corporation Trust Company
18 1209 Orange Street
19 Wilmington, Delaware 19801

20 Blackbird Mining Company Limited Partnership
21 Bruce H. Grosse, President
22 181 Bay Street, Suite 4100
23 Toronto, Ontario M5J 2T3
24 Canada

25 Alumet Corporation
26 The Corporation Trust Company
27 1209 Orange Street
28 Wilmington, Delaware 19801


Hanna Services Company
The Corporation Trust Company
1209 Orange Street
Wilmington, Delaware 19801

Noranda Exploration, Inc.
The Corporation Trust Company
1209 Orange Street
Wilmington, Delaware 19801

1 and delivered by hand to:

2 Mary L. Shillcutt
3 Regional Hearings Clerk
4 U.S. EPA, Office of Regional Counsel
5 1200 Sixth Avenue, SO-155
6 Seattle, Washington 98101

7 Date: June 15, 1995


8 CAROLYN J. GLOVER
9 Legal Secretary
10 United States Environmental
11 Protection Agency
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27 Certificate of Service for the Administrative Order
28 on Consent for Removal Action and Recovery of Costs at
the Blackbird Mine Site - Page 2

APPENDIX
STATEMENT OF WORK (SOW)
REMOVAL ACTION IMPLEMENTATION
BLACKBIRD MINE

1.0 Introduction

Construction and implementation of a non-time-critical removal action (referred to herein as "Early Action" or "EA") shall be performed in the Bucktail Creek and Meadow/Blackbird Creek drainage basins to: (1) relocate or physically stabilize waste rock in the Bucktail Creek drainage basin; (2) relocate, cap, or combination of relocate/cap waste rock/tailings in the Meadow/Blackbird Creek drainage basin above the existing water treatment plant; (3) deposit relocated waste rock and debris flow material that is not used to construct elements of the Early Action into the Blacktail Pit; (4) divert clean surface waters around waste rock and tailings; (5) collect, temporarily store, if necessary, and transport contaminated surface water and groundwater from waste rock, tailings, and adit discharges; (6) relocate debris flow material from Bucktail Creek; and (7) operate and maintain the existing water treatment plant for the treatment of contaminated waters.

Construction of the EA will occur in two phases during the 1995 and 1996 construction seasons and shall be completed before the 1997 spring runoff. The Phase II construction schedule will be determined upon completion of the Phase I construction completion report, as approved by EPA. Some of the construction activities are dependent on investigation to be performed in early spring/summer of 1995 (Phase II investigation). The Phase II investigation is occurring under the November 18, 1994, Administrative Order on Consent for RI/FS and other Removal Action (RI/FS AOC). Details on the Phase II investigation are provided in the Workplan for 1995 Early Action Field Investigation (May 1995). The phasing of construction elements are included in Paragraph 3.0 of this SOW.

2.0 General Description of the Work

2.1 Bucktail Creek Basin

Work in the Bucktail Creek Basin shall consist of relocation of waste rock on the west side of the basin, construction of a waste rock repository in the Blacktail pit, physical stabilization or relocation of remaining waste rock, removal of debris flow material in lower Bucktail Creek, and construction of temporary sediment dams at the confluence of the east and west forks of upper Bucktail Creek and above the confluence of Bucktail Creek and the South Fork of Big Deer Creek. In addition, if it is determined that collection of

contact water is required, work shall also consist of constructing non-contact water diversion ditches, a contact water diversion structure, and improvements at the 7117 adit. The primary elements of work in the Bucktail Creek Basin are shown on the attached Figure 1.

2.1.1 Waste Rock Relocation

Acid/metals generating waste rock located in the western drainage of upper Bucktail Creek (see Figure 1) will be removed and transported to the Blacktail Pit Repository for deposition. Acid/metals generating waste rock located below the 7117 portal will also be removed and transported to the Blacktail Pit Repository for deposition. All such waste rock and underlying alluvium/colluvium shall be removed to competent bedrock, unless otherwise determined by EPA in consultation with the State and Trustees. Appropriate haul roads will be constructed, as necessary, to accomplish the removal and transportation of waste rock. Following relocation of waste rock, all disturbed areas will be reclaimed as specified in Section 2.5 of this SOW.

2.1.2 Blacktail Pit Repository

A repository for waste rock will be constructed at the Blacktail Pit. A drainage system will be constructed to allow runoff to drain to the bottom of the pit. The drainage system will also be constructed to assure that drainage from the bottom of the pit flows into the workings of the mine leading to the Meadow Creek basin. The top surface of the waste rock in the repository will be graded to drain away from the Bucktail Creek drainage, and into the pit drainage system. Any portion of the waste rock surface within the pit that cannot be graded to drain into the pit drainage system will be physically stabilized, such as by covering with an erosion-resistant cover to prevent releases of sediments, waste rock materials, and contaminated water into the Bucktail Creek drainage.

2.1.3 Pilot Stabilization Program

To evaluate the effectiveness of in place stabilization, alternative methods of stabilization will be constructed on limited areas of waste rock. The pilot stabilization program shall include evaluation of in place stabilization on angle of repose slopes. Stabilized areas will be constructed to facilitate evaluation of slope stability, sediment production and tendency toward mass wasting, and the effectiveness and implementability of construction techniques on steep waste rock piles.

2.1.4 Contact and Non-contact Water Diversion Ditch Regrades

Where roadways already exist, the contact and non-contact diversion ditches will be constructed by regrading the roadways to slope toward the existing borrow ditches on the uphill side of the roadways, and by regrading the borrow ditches as necessary to carry the peak flows from a 500-year thunderstorm event. Contact water diversion ditches include the BT-East and BT-West Collection Ditch Regrades. Non-contact water diversion ditches include the 7900 and Sunshine Diversion Ditch Regrades.

2.1.5 Upper Bucktail Creek Sediment Dam

An earthfill sediment control dam will be constructed in upper Bucktail Creek below the confluence of the east and west forks of Bucktail Creek. The sediment dam will be used to settle out sediment generated during construction activities for the Early Action, and for a period of time thereafter, if determined necessary by EPA, in consultation with the Trustees. When it is determined that the sediment dam is to be removed, the associated sediments will be relocated to the Blacktail Pit Repository and uncontaminated dam materials may be used in reclamation of the site. Following removal, all disturbed areas associated with the sediment dam, sediments, and any necessary access roads will be reclaimed as specified in Paragraph 2.5 of the SOW.

2.1.6 Lower Bucktail Creek Debris Flow Remediation

Materials deposited along Bucktail Creek during debris flows associated with major thunderstorm events will be removed as described below.

2.1.6.1 Removal of debris flow materials and contaminated sediments in Bucktail Creek from the 7117 level to the confluence with South Fork Big Deer Creek. Debris flow material will be removed until no visual evidence of debris material is remaining. Employment of best management practices will be used to minimize construction disturbance to the existing habitat. Removed materials will be relocated to the Blacktail Pit Repository.

2.1.6.2 Construction of an earthfill sediment control dam above the confluence of Bucktail Creek and the South Fork of Big Deer Creek. An earthfill sediment control dam will be constructed to capture sediment generated during the debris flow removal action and residual migration, and for a period thereafter, as determined by EPA, in consultation with the State and Trustees. When EPA determines that the sediment dam should be removed,

the associated sediments will be relocated to the Blacktail Pit Repository, and uncontaminated dam materials may be used in reclamation.

2.1.6.3 New areas of disturbance created by debris flow remediation, construction of the sediment control dam, sediments behind the dam, and any necessary access roads, shall be reclaimed as specified in Paragraph 2.5.

2.2 Bucktail Creek Basin Work Dependent on Phase II Investigation

Following the Phase II investigation and the pilot stabilization program, EPA, in consultation with the State and Trustees, will select a method for addressing contaminated waste rock. The method will be either relocation of all of the waste rock and underlying alluvium/colluvium as described under Section 2.1.1, or partial waste rock relocation and stabilization as described in Paragraph 2.2.1 below. If partial waste rock relocation and stabilization is selected, the following elements shall be constructed.

2.2.1 Waste Rock Stabilization/Relocation

Existing waste rock piles that can be adequately stabilized against seismic and erosion failures will remain in place. Existing waste rock piles that cannot be adequately stabilized against seismic and erosion failures will be relocated to the Blacktail Pit Repository, in a manner consistent with Paragraph 2.1.1. Based upon the results of a pilot stabilization program, EPA, in consultation with the State and Trustees, will determine which piles can be adequately stabilized. Stabilization will consist of regrading, terracing, armoring, toe berms, or other measures, as appropriate, to be determined by EPA in consultation with State and Trustees.

2.2.2 Contact Water Diversion Structure

A contact water diversion structure will be constructed below the remaining waste rock piles to collect contact drainage from the upper Bucktail Creek drainage for subsequent conveyance to the Meadow Creek drainage, as determined necessary by EPA in consultation with the Trustees. The diversion structure will be sized to convey the peak instantaneous flow from a 500-year thunderstorm, and based on the assumption that all non-contact water ditches are designed for the 500-year thunderstorm event. The diversion structure will drain toward the 7117 adit, which will be used to direct flows into the underground mine for conveyance, temporary storage (if necessary), and treatment. Sediment control structure(s) will be located in the vicinity of the 7117

portal to remove sediment prior to introducing contact waters into the mine. A grout curtain or other appropriate groundwater cutoff structure, such as a drain, will be constructed beneath the entire length of the diversion structure, extending to underlying competent bedrock, to provide a cutoff for contaminated groundwater flow (in the alluvium/colluvium and shallow bedrock) that could adversely impact downgradient water quality.

In areas where waste rock is removed, contact water diversion structures will be constructed, if deemed necessary by EPA in consultation with the State and Trustees. The design of the contact water diversion structures may be different from the design described above, if determined appropriate by EPA in consultation with the State and Trustees.

2.2.3 Improvements to the 7117 Adit

If the contact water diversion structure is constructed, a bulkhead (minimum 4 feet high) or other appropriate structure will be constructed in the 7117 adit to allow gravity flow into the 959 Raise at elevation 7120 feet, or pipeline will also be constructed along the 7117 adit, from the portal to the 959 Raise, to convey flows collected by the contact water ditch to the 959 Raise. Other improvements to the 7117 portal and adit will be made, as necessary, for safety and for proper operation and maintenance.

2.2.4 Mine Storage and Conveyance

The existing mine workings will be used for conveyance to the water treatment plant, and for temporary storage (if necessary) of contact waters from the Bucktail Creek basin. Bucktail waters will only be stored in the mine workings when runoff flows exceed the capacity of the water treatment plant. To assure the long-term effectiveness and reliability of using the mine workings for conveyance and temporary storage (if necessary), a detailed reconnaissance of the underground workings will be performed in Phase II investigation. The reconnaissance will include an evaluation of the existing conditions of the various adits, raises, and bulkheads that could potentially be used for conveyance and storage of contact waters. Based upon the results of the evaluation, rehabilitation of the mine workings will be implemented, as necessary, to assure continued, reliable conveyance and storage, plus safe access for periodic inspections, operation and maintenance, and rehabilitation work in the future.

Contingency measures will be considered during the construction of the contact water facilities to address the possibility that future blockages or plugging within the mine

will preclude the use of the mine for conveyance and/or storage of contact waters. The contingency measures will include, at a minimum, provisions for installation of temporary pumps and pipelines to convey Bucktail basin contact waters over the divide to the Meadow Creek basin.

2.2.5 Non-Contact Water Diversion Ditches

Non-contact water diversion ditches (7600 Diversion Ditch and West Bucktail Diversion Ditch) will be constructed in the upper reaches of the Bucktail Drainage. The flows in the ditches will be collected at the ends of the ditches and piped below the waste rock into the Bucktail Creek drainage. As much as possible, the ditches will be constructed along existing roads above the mine waste rock. At the discharge from the pipe or ditches, energy dissipators and sediment control facilities will be constructed to prevent sediment production and erosion. The ditches will be sized to convey the peak flows from a 500-year thunderstorm.

2.3 Meadow Creek Basin

The work in the Meadow Creek basin will include non-contact water diversion ditches, a water storage dam at the 7100 level, improvements to the 7100 adit, waste rock relocation, a groundwater cutoff wall, sediment control facilities during construction, and removal/capping of waste rock in lower Meadow Creek and Blackbird Creek channels below the 7100 level dam. The primary elements of work for the Meadow Creek basin are shown on the attached Figure 1.

2.3.1 Non-Contact Water Diversion Ditches

Four non-contact water ditches will be required to divert clean water away from waste rock areas. The 7410 and 7100 East Diversion Ditches will divert clean water from the eastern slopes of the basin (beginning at approximately elevation 7460) and discharge below the 7100 dam. The 7100 West Diversion Ditch will divert clean water from the western slopes of the basin (beginning at approximately elevation 7360) and discharge below the 7100 dam. The 7800 Diversion Ditch will divert clean water around the 7800 waste rock pile. The 7800 Diversion Ditch will begin at the divide separating the Bucktail and Meadow Creek drainages and flow to the south approximately 2400 feet where it will be collected into a pipeline and transported to the 7100 West Diversion Ditch. All ditches will be sized to convey the peak flows from a 500-year thunderstorm. All ditches will be constructed with appropriate energy dissipation and sediment control structures prior to discharge to natural drainages.

2.3.2 7100 Storage Dam

A zoned earthfill dam to store contact waters will be constructed at the 7100 level. The dam will have a clay core, a rock shell, appropriate filter materials, and a grout curtain extending beneath the foundation to cut off contaminated groundwater flows in the alluvium and underlying shallow bedrock. Waste rock may be used in the rock shells of the dam, if demonstrated that selected waste rock materials meet acceptable engineering standards, and if appropriate measures are incorporated to collect, and transport for treatment, contaminated runoff and seepage from waste rock. The outlet works will include: a low flow outlet pipe to direct flows into the 7100 portal; a drop inlet spillway, associated outlet pipe, and downstream energy dissipation structure; and an emergency open-channel spillway. The storage dam will be sized for the larger of the following (assuming adequate freeboard, 400 gpm treatment plant capacity, non-contact water ditch efficiency of 80 percent, and that all contact water flows from the Bucktail basin are stored in the mine):

2.3.2.1 The total runoff volume from the 100-year snowpack, plus the volume of sediment that will be generated during the 100-year snowmelt event;

2.3.2.2 The total runoff volume from the 500-year, 24-hour thunderstorm event (assuming that all non-contact water ditches are designed for the 500-year thunderstorm event), plus the volume of sediment that will be generated during the 500-year, 24-hour thunderstorm event; or

2.3.2.3 As a temporary contingency measure, if the mine cannot be used to store flows from the Bucktail basin, the total combined 20-year snowmelt runoff volume, from both the Meadow Creek and Bucktail Creek basins, plus the volume of Meadow Creek sediment that will be generated during the 20-year snowmelt event. Bucktail sediment will be contained by the 7117 contact water diversion structure.

The drop inlet spillway and the emergency open-channel spillway will both be sized to pass the peak instantaneous discharge from the 500-year thunderstorm event, assuming that the reservoir is full at the beginning of the thunderstorm event, and that all non-contact water ditches fail or are overtopped during the thunderstorm event.

Seismic design loads or appropriate cyclical load approximations will be evaluated and used in the analysis and design of the 7100 dam.

2.3.3 Mine Conveyance

The existing mine workings will be used for conveyance to the treatment plant of the waters stored at the 7100 storage dam. Contingency measures will be considered in the construction of the outlet works from the 7100 dam, in the event that future blockages or plugging within the mine preclude the use of the mine for conveyance of contact waters. The contingency measures will include, at a minimum, provisions for installation of a temporary pipeline to convey the contact waters from the 7100 dam to the treatment plant.

2.3.4 Waste Rock Removal

Acid/metals generating waste rock located on the valley hillsides downstream from the 7100 dam will be relocated. Depending on Phase II investigation, this may include east side waste rock dumps which are comprised of four dumps including the Hawkeye Gulch waste dump, and the north end waste rock dumps which are comprised of the Boneyard area and 7700 dump. The waste rock will be transported to either the Blacktail Pit repository, or used for construction of the 7100 dam, as appropriate. Waste rock and underlying alluvium/colluvium will be removed to competent bedrock or an action level to be determined after Phase II investigation. Appropriate haul roads will be constructed, as necessary, to accomplish the relocations. Following relocation, all disturbed areas will be reclaimed as specified in Section 2.5.

2.3.5 Lower Meadow Creek/Blackbird Creek Waste Rock Relocation/Capping

Acid/metals generating waste rock along the Meadow Creek/Blackbird Creek channel, from the 7100 dam to the groundwater cutoff wall near the water treatment plant, will be either relocated or capped. The determination of whether these materials will be relocated, capped, or a combination of the two techniques will be made by EPA, in consultation with the Trustees, following the Spring 1995 Phase II field investigations. Depending upon which technique is employed, the following will apply:

2.3.5.1 Relocation. Any acid/metals generating waste rock and underlying alluvium/colluvium will be removed and transported to the Blacktail Pit Repository or used in the construction of the 7100 dam, as appropriate. Channel restoration will be implemented, as necessary, to minimize production of sediments. Appropriate haul roads will be constructed, as necessary, to accomplish the relocations. Following relocation, all disturbed areas will be reclaimed as specified in Section 2.5.

2.3.5.2 Capping. Any acid/metals generating waste rock and underlying alluvium/colluvium will be regraded as necessary, capped with an impermeable cap, and covered by an effective erosion resistant cover. The cap will be tied into the bedrock underlying the alluvium/colluvium on the canyon sidewalls to effectively intercept non-contact water flowing over and within the alluvium/colluvium. A channel will be constructed on top of the cap to pass non-contact waters. The channel will be designed for the peak instantaneous discharge from the 500-year thunderstorm event, and will be armored as necessary to prevent channel erosion.

2.3.6 Sediment Control Facilities for Construction

In addition to the existing sediment control facilities, sediment control facilities will be constructed in Meadow Creek and/or Blackbird Creek (as appropriate) to settle out sediment generated during construction activities for the Early Action, and for a period of time thereafter, if determined necessary by EPA, in consultation with the Trustees. When EPA determines that the sediment control facilities are to be removed, the associated sediments will be relocated to the Blacktail Pit Repository and the uncontaminated construction materials may be used in reclamation. Following removal, all disturbed areas associated with the sediment control facilities, sediments, and any necessary access roads will be reclaimed as specified in Paragraph 2.5.

2.3.7 Groundwater Cutoff Wall

A groundwater cutoff wall will be constructed at a point below contaminated waste rock near the water treatment plant to collect contaminated alluvial and shallow bedrock groundwater flow. The cutoff wall will consist of a backhoe-excavated trench backfilled with a cement/bentonite mixture, or other appropriate construction techniques. The trench will extend from the surface to competent bedrock or excavator refusal. A conveyance system will be installed from the cutoff wall to the water treatment plant. The conveyance system will be designed for the peak anticipated groundwater flows.

Following Phase II field investigations, EPA, in consultation with the Trustees, will determine whether a groundwater cutoff wall will be constructed.

2.4 Water Treatment Plant

The existing water treatment plant will remain at its current location and will operate at its current capacity of

400 gpm. The instrumentation and controls will be upgraded to allow automated operation of the treatment plant. In addition, in the event of a treatment plant failure a contingency pumping system will be constructed to pump water from the treatment plant storage basin to the mine for storage. Until otherwise determined by EPA, the plant shall comply with the existing NPDES permit and monitoring requirements.

2.5 Erosion Control and Reclamation

All activities conducted as part of the Early Action will use construction techniques that minimize production of sediments. In addition, all areas disturbed during the early action will be reclaimed. Reclamation will consist of the following:

2.5.1 Waste Rock Relocation. The fine materials overlying the bedrock will be removed to the maximum extent possible. No further reclamation will be required for bare bedrock. Appropriate control measures will be implemented at the bottom of and on the bare bedrock slope, as appropriate to reduce downstream erosion and sediment generation.

2.5.2 Other Disturbed Areas. Previously disturbed areas that are part of this early action will be stabilized, not reclaimed. All other previously undisturbed areas disturbed during the early actions will be reclaimed by regrading or filling to match the surrounding contours, returning clean soil where clean soil was originally present (as necessary), adding appropriate soil amendments and/or fertilizers, and re-seeding with appropriate native species. On steep slopes, pinned jute matting or other techniques may be necessary to stabilize the slope until the vegetation becomes established.

3.0 Construction Phasing

Construction of the Early Action will occur over a two year period, with Phase I construction activities being conducted during 1995 and Phase II construction activities during 1996. The elements to be included in each phase are set forth below.

3.1 Phase I Construction Elements

Bucktail Drainage Basin

3.1.1 Regrade the existing road and non-contact ditch above the Blacktail Pit (7900 Diversion Ditch and BT-East). Regrade and/or construct the

non-contact water ditch above the west Bucktail waste rock dump (Sunshine Diversion Ditch Regrade, and West Bucktail Diversion Ditch).

- 3.1.2 Regrade contact water ditches (BT-East and BT-West) to direct surface water drainage into the Blacktail Pit.
- 3.1.3 Construct the drainage system foundation in the Blacktail Pit.
- 3.1.4 Remove waste rock from the western dump in the Bucktail Basin, and relocate waste rock into the Blacktail Pit. Remove additional waste rock east of White Ledge shear zone, weather permitting, as determined by EPA.
- 3.1.5 Construct a sediment control dam in the upper Bucktail basin below the waste rock dump relocation activities.
- 3.1.6 Construct a "pilot" program of waste rock stabilization to determine effectiveness, implementability, and to evaluate construction techniques.
- 3.1.7 Construct a sediment control dam above the confluence of Bucktail Creek and South Fork Big Deer Creek.
- 3.1.8 Remove waste rock debris and sediments in lower Bucktail Creek.

Meadow Blackbird Creek Drainage Basin

- 3.1.9 Construct non-contact ditch in the Meadow Creek basin to start at the basin divide and flow southward above the 7800 dump (7800 Diversion Ditch).
- 3.1.10 Foundation grouting and construction of the core trench for the 7100 dam.
- 3.1.11 Construct a stream diversion and piping system above the 7100 dam location to be left over the winter of 1995/1996, allowing dam construction to begin early in 1996. The diversion system will divert water to the mine (at the 7100 portal) or the downstream open channel.
- 3.1.12 Construct an access road to the 7100 level dam.

- 3.1.13 Construct sediment control facilities, as necessary, in Meadow Creek and Blackbird Creek basins.
- 3.1.14 Construct cutoff wall, and piping to the water treatment plant in Blackbird Creek, as necessary, near the water treatment plant to intercept the flow of contaminated groundwater for treatment.
- 3.1.15 Relocate, cap, or a combination of relocating/capping of waste rock valley fill and alluvium/colluvium in lower Meadow Creek and Blackbird Creek valleys, below 7100 level down to WTP cutoff.

3.2 Phase II Construction Elements

Bucktail Creek Basin

- 3.2.1 Construct contact water collection structures within the Bucktail basin, as necessary.
- 3.2.2 Relocate waste rock below the 7117 portal to the Blacktail Pit Repository.
- 3.2.3 Construct improvements to the 7117 portal and adit, as necessary.
- 3.2.4 Relocate waste rock (at minimum 7117 waste rock dump and others, as necessary) and/or stabilize remaining dumps in the Bucktail basin.
- 3.2.5 Physically stabilize, such as by covering any portion of the relocated waste rock surface in Blacktail Pit that cannot be graded to drain into the pit drainage system.

Meadow/Blackbird Creek Basin

- 3.2.6 Construct non-contact water ditches above the 7100 dam reservoir (7410, 7100 East and 7100 West Diversion Ditches).
- 3.2.7 Complete the 7100 dam and appurtenances.
- 3.2.8 Relocate the east side isolated areas of acid-generating waste rock above Meadow Creek, including Hawkeye Gulch.

- 3.2.9 Complete water treatment plant upgrade and automation.
- 3.2.10 Construct mine bulkhead and/or rehabilitation, as necessary.
- 3.2.11 Construct Meadow Creek channel improvements from the 7100 dam to Blackbird Creek, as necessary.

4.0 Operations and Maintenance

Operations and maintenance (O & M) shall be performed in accordance with the O & M plan, as set forth in the final design report.

5.0 Deliverables

1. Progress Reports

As set forth in Paragraph 46 of the Order, Respondents shall submit written progress reports until termination of the Order.

2. Phase I Construction Completion Report

Respondents shall submit a report summarizing the construction elements completed during Phase I construction activities. The requirements set forth in Section 300.165 of the NCP entitled "OSC Reports" and EPA publication 9360.3-03, EPA-540/R-94/023 should be used as guidelines for the report. To allow the evaluation of whether adequate financial security is provided under Section XVII of the Order, the report shall at least include a good faith estimate of the costs of completing Phase I construction activities or a statement of actual costs for completing such activities, as well as a good faith estimate of the cost of completing Phase II construction activities and any Post Removal Site Control and Operations and Maintenance required under the RI/FS AOC or the Order. Any information obtained during Phase I construction that affects the design or construction of Phase II activities shall be incorporated into the Phase II design report.

3. Final Report

As set forth in Paragraph 51 of the Order, a final report summarizing the actions taken shall be submitted. The final report shall conform, at a minimum, with the requirements set forth in Section 300.165 of the NCP entitled "OSC Reports" and EPA publication 9360.3-03, EPA-540/R-94/023. The final report shall include a good faith estimate of total costs or a

statement of actual costs incurred in complying with the order, a listing of quantities and types of materials removed off-Site or handled on-Site, a discussion of removal and disposal options considered for those materials, a listing of the ultimate destination of those sampling and analyses performed, and accompanying appendices containing all relevant documentation generated during the removal action (e.g., manifests, invoices, bills, contracts, and permits).

6.0 Schedule

Upon approval by EPA of the Phase I and Phase II work plans in accordance with Section V of the Order, the schedule for the Phase I and II construction activities will be incorporated into this SOW as if fully set forth herein. If Phase II investigation is completed ahead of schedule, the schedule for Phase I construction elements dependent on Phase II investigation shall be adjusted accordingly.

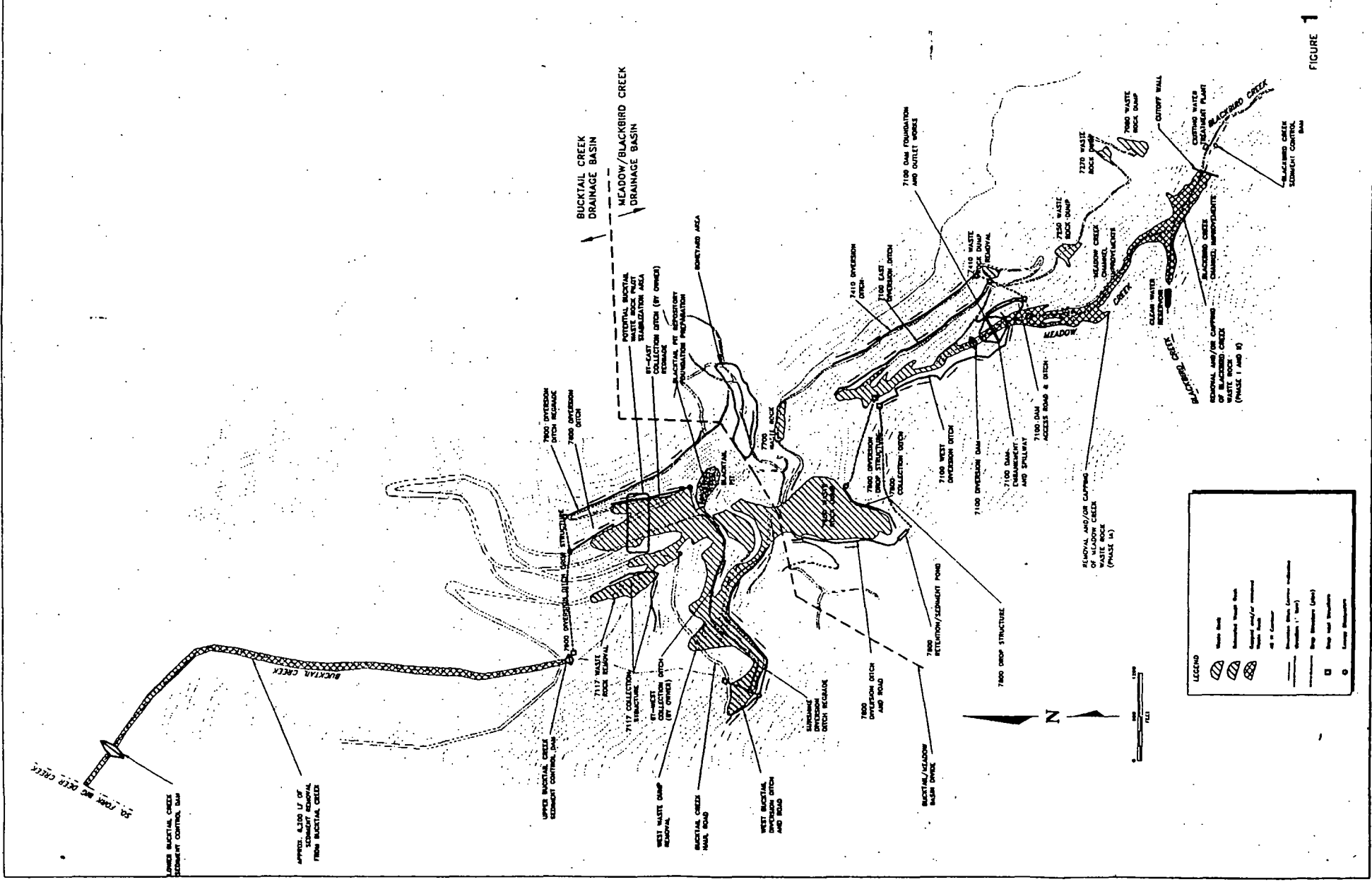


FIGURE 1